Medical Biotechnology/ Molecular Diagnostics

02-08-P

NANOTECHNOLOGY: THE USE OF TAXOL IN THE TREATMENT OF BREAST CANCER IN ALBANIA

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The PARB inhibitors has been used in clinics, in Albania, in the last three years. We conducted a double clinical trial: a) An extensive review of PARB inhibitors in abstract using Medline and other public databases (2008-2011) and b) a deep assessment of the relationships between the number of cases reported by Tirana University Hospital Centre and the drug therapy used for such cases. The study objective was the comparison of nab-paclitaxel effect vs. conventional, solvent based paclitaxel in respect to activity (objective response rates) and safety/tolerability ration, in patients with metastatic breast cancer. The mean age of the patients diagnosed with breast cancer, encompassed in this clinical trial is 51±10 years old. The pharmacological treatment in Albania for such diagnosis is based on Endoxan (Cyclophosphamide), Holoxan (Ifosfamide), Cisplatin, Epirubicin, Methotrexate, Taxotere (Docetaxel), Paclitaxel, Vincristine, Vinblastine and 5-Fluorouracil (5-FU). This assessment is focused only on the use of taxones in such treatments. The tumor cells in order to feed themselves, produce PARB in high quantities, which needs albumin, and based on this mechanism is elaborated the nano ^{TM}. To carry the Paclitaxel in the tumoral cells, is used the human Albumin, which forms nanoparticles that interact with PARB. In the study the results of a Phase II, multi-center, open-label, neoadjuvant, randomized study of weekly paclitaxel with or without LCL161 in patients with triple negative breast cancer has been analyzed. 90 patients were randomized to receive the study treatment. 65 gene expression signature positive patients were randomized to LCL161+paclitaxel (N=29) or paclitaxel only (N=36). 25 gene expression signature negative patients were randomized to LCL161+paclitaxel (N=15) or paclitaxel only (N=10). In the group of patients in the study 45 of them took nab-paclitaxel 260 mg/m^2 for 30 minutes once every 3 weeks with no standard premedication and the rest of the group got standard paclitaxel 175 mg/m^2 over three hours once every 3 weeks with standard premedication of steroids and antihistamines, following the standardized therapy. The mean dose per cycle (m^2) was similar in two treatments. Patients in the nab-paclitaxel group had significantly higher objective response compared with those in the paclitaxel group (33% vs.19%, P=0.001). This difference was statistically significant. For first line patients, there was a 42% objective response rate as compared to 27% treated with standard paclitaxel.

Keywords: paclitaxel, clinical trials, ovarian cancer, molecular biology, treatment

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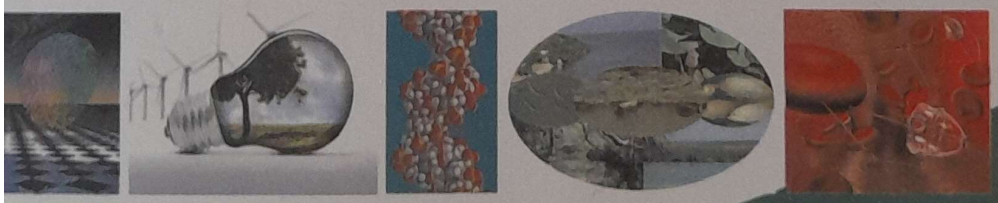
BOOK OF ABSTRACTS



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(03-AGRICULTURAL BIOTECH AND 04-FOOD BIOTECH)

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9:30 – 9:50	Valorisation of susceptibility genes in plant breeding for resistance to biotic stresses	Luigi Ricciardi, Stefano Pavan, Adalgisa Schiavulli, Michela Appiano, Angelo R. Marcotrigiano, Cecilia Miacola, Fabrizio Cillo, Concetta Lotti
9:50 – 10:10	Deep sequencing applied to virus analysis and discovery	Pasquale Saldarelli, Annalisa Giampetruzzi, Roberta Roberto, Minafra Angelantonio
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